

## DIMENSIONALLY STABLE BALLOONS

### ABSTRACT OF THE DISCLOSURE

5 An inflatable medical balloon comprises a polymer matrix material and a plurality of fibers distributed in the matrix material. The plurality of fibers operatively adhere to the matrix material and provide reinforcement thereof. The fibers may be parallel or angularly oriented relative to the longitudinal balloon axis, and may be helically disposed thereabout. The fibers may be composed of material which has a  
10 greater tensile strength than the matrix material. The fibers may be microfibers formed by phase separation of a melt blend material during extrusion or polymer cores coextruded with the matrix material and surrounded thereby. The balloon may be formed of alternating layers of fiber-free polymer and layers of fiber-containing polymer.

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